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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/732,122	12/07/2000	Ellen Marie Eide	YOR920000648US1	9601

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FAIRFIELD, CT 06824

EXAMINER

AZAD, ABUL K

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 11/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

09/732,122

EIDE ET AL.

Examiner

Art Unit

ABUL K. AZAD

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see Pre-Appeal Brief, filed August 15, 2006, with respect to the rejection(s) of claim(s) 1-24 under 102 and 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made as follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-10, 12-17 and 19-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kleijn (US 5,517,595).

As per claim 1, Kleijn teaches, "a method for synthesizing speech", comprising:
"generating a pitch contour for said synthesized speech" (col. 2, lines 35-51); and
"enhancing the natural sound of concatenated synthesized speech segments by increasing an amount of energy in low frequency components of said pitch contour" (col. 16, line 56 to col. 17, lines 10, particularly reads on "when the periodicity level is small for low frequencies, and higher for high frequencies such enhancement can be obtained with amplitude modulation of REW").

As per claim 3, Kleijn teaches, "interpolating discrete pitch values to generate said pitch contour" (Fig. 11, element 312).

As per claim 4, Kleijn teaches, "adding band limited noise to said pitch contour" (col. 16, line 56 to col. 17, lines 10, particularly reads on "time-domain Gaussian-noise sample")

As per claim 5, Kleijn teaches, "said band limited noise is comprised of one or more sinusoidal components" (col. 16, line 56 to col. 17, lines 10).

As per claim 6, Kleijn teaches, "wherein said band limited noise may be expressed as $a \times \sin(\omega t + \phi)$, where a is the amplitude of the pitch Variation, $\omega = 2\pi \text{ fr}$; and fr is the rate of pitch variation" (equation 1).

As per claim 7, Kleijn teaches, filtering said pitch contour with an impulse response filter having a pole at a desired low frequency value" (col. 17, lines 31-62).

As per claim 8, Kleijn teaches, "add vibrato to said pitch contour" (col. 16, line 56 to col. 17, lines 10).

As per claim 9, Kleijn teaches, "wherein said pitch contour comprises a pitch value associated with each syllable of said speech" (col. 2, lines 35-52).

As per claims 10, 12-17, 19-24, they are interpreted and thus rejected for the same reasons set forth in the rejection of claims 1, 3-9.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleijn (US 5,517,595) as applied to claims 1, 10 and 17 above, and further in view of Udaya (US 6,418,408).

As per claim 2, 11 and 18, Kleijn teaches a low frequency component, however does not explicitly teach, said low frequency components are below approximately 10 Hz. Udaya teaches said low frequency component is 0-25 Hz (col. 8, line 46 to col. 9, line 1-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Udaya's teaching in the invention of Kleijn because Udaya teaches his invention for mitigating the effects of frame erasure or packet loss between the speech encoder and the speech decoder due to a degraded medium" (col. 1, lines 60-63).

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Abul K. Azad** whose telephone number is **(571) 272-7599**. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richemond Dorvil**, can be reached at **(571) 272-7602**.

Art Unit: 2626

Any response to this action should be mailed to:

Commissioner for Patents

P.O. Box 1450

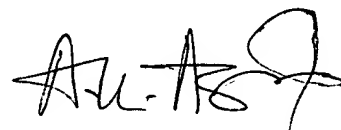
Alexandria, VA 22313-1450

Or faxed to: **(571) 273-8300**.

Hand-delivered responses should be brought to **401 Dulany Street, Alexandria, VA-22314** (Customer Service Window).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 25, 2006



Abul K. Azad
Primary Examiner
Art Unit 2626